

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1. (previously presented) An isolated or purified antibody that specifically binds to a nuclear matrix protein or an antigenic fragment thereof, wherein said nuclear matrix protein is present in cancerous bladder cells but absent in normal bladder cells, and wherein the nuclear matrix protein is BLCA-6 having a molecular weight of about 31 kD and a pI of about 8.00.

Claim 2 (withdrawn) An antibody of claim 1, wherein the protein is BLCA-1 having a molecular weight of 72 kD and a pI of 7.70.

Claim 3 (withdrawn) An antibody of claim 1, wherein the protein is BLCA-2 having a molecular weight of 40 kD and a pI of 7.50.

Claim 4 (withdrawn) An antibody of claim 1, wherein the protein is BLCA-3 having a molecular weight of 39 kD and a pI of 6.27.

Claim 5 (withdrawn) An antibody of claim 1, wherein the protein is BLCA-4 having a molecular weight of 37 kD and a pI of 6.24.

Claim 6 (withdrawn) An antibody of claim 1, wherein the protein is BLCA-5 having a molecular weight of 29 kD and a pI of 5.80.

Claim 7 (cancelled).

Claim 8 (withdrawn) An antibody of claim 2, wherein the protein comprises the amino acid sequence of SEQ ID NO:1.

Claim 9 (withdrawn) An antibody of claim 3, wherein the protein comprises the amino acid sequences of SEQ ID NO:2 and SEQ ID NO:3.

Claim 10. (previously presented) The antibody of claim 1, wherein the antibody is directed against a peptide having an amino acid sequence of SEQ ID NO:4.

Claim 11. (original) An antibody of claim 1, wherein the antibody is a monoclonal antibody.

Claim 12 (cancelled).

Claim 13 (withdrawn) The antibody of claim 12, wherein the nuclear matrix protein is BLCA-4 having a molecular weight of about 37 kD and a pI of about 6.24.

Claim 14 (withdrawn) The antibody of claim 13, wherein the antibody is directed against a peptide having the amino acid sequence of SEQ ID NO: 2.

Claim 15 (withdrawn) The antibody of claim 14, wherein the antibody is a monoclonal antibody.

Claim 16 (withdrawn) A method of diagnosing a subject having bladder cancer or determining if a subject is at risk of developing bladder cancer, comprising contacting a sample taken from the subject with an antibody of claim 1, wherein bladder cancer or risk of developing bladder cancer is indicated if the antibody binds to the protein or antigen.

Claim 17 (withdrawn) A method of diagnosing a subject having bladder cancer or determining if a subject is at risk of developing bladder cancer, comprising contacting a sample taken from the subject with an antibody of claim 12, wherein bladder cancer or risk of developing bladder cancer is indicated if the antibody binds to the protein or antigen.

Claim 18 (withdrawn) A method of diagnosing a subject having bladder cancer or determining if a subject is at risk of developing bladder cancer, comprising contacting a sample taken from the subject with an antibody of claim 14, wherein bladder cancer or risk of developing bladder cancer is indicated if the antibody binds to the protein or antigen.

Claim 19. (previously presented) The antibody of claim 1, wherein the antibody is an antibody fragment.

Claim 20. (previously presented) The antibody of claim 10, wherein the antibody is a monoclonal antibody.

Claim 21. (previously presented) The antibody of claim 10, wherein the antibody is an antibody fragment.

Claim 22. (previously presented) The antibody of claim 1, wherein the antibody is coupled to a therapeutic agent.

Claim 23. (previously presented) The antibody of claim 1, wherein the antibody is labeled with a radioisotope or paramagnetic isotope.

Claim 24. (previously presented) The antibody of claim 1, wherein the nuclear matrix protein is not elevated in subjects afflicted with cystitis.